

Claims

1. Method for monitoring broadcast signals at alternative frequencies during the reception of a broadcast signal at a present frequency,

5 **characterized by**

a step of instantaneously switching the receiver's gain from a present gain value corresponding to said present frequency to a second gain value corresponding to an alternative frequency whenever the broadcast signal at said alternative frequency is checked, whereby said second gain value is adapted to the supposed
10 signal strength of the broadcast signal at said alternative frequency.

2. Method according to claim 1,

characterized by

a step of determining whether the program transmitted via the broadcast signal at
15 said alternative frequency is the same as the program transmitted via the broadcast signal at the present frequency.

3. Method according to claim 1 or claim 2,

characterized by

20 a step of comparing the signal strength of the broadcast signal received at the alternative frequency to the signal strength of the broadcast signal received at the present frequency.

4. Method according to any of the preceding claims,

25 **characterized in that**

in case the signal strength of the broadcast signal at the alternative frequency surpasses the signal strength of the signal at the present frequency by a predefined amount, and in case the programs transmitted at both frequencies are identical, the received frequency is switched from the present frequency to the
30 alternative frequency.

5. Method according to any of the preceding claims,

characterized in that

35 both the broadcast signal received at said present frequency and the broadcast signal received at said alternative frequency are broadcast signals according to the DRM standard.

6. Method according to claim 5,

characterized in that

alternative frequencies are monitored during time slots (18, 20, 22) of static data symbol transmission, whereby during a first time slot (18), the receiver's gain control circuit (13) settles to said second gain value, and whereby during a second time slot (20) of static data symbol transmission, the receiver's gain is
5 instantaneously switched to said second gain value.

7. Method according to claim 5 or claim 6,
characterized by
a step of correlating said broadcast signal received at said present frequency and
10 said broadcast signal received at said alternative frequency.

8. Method according to any of claims 1 to 4,
characterized in that
both the broadcast signal received at said present frequency and the broadcast
15 signal received at said alternative frequency are FM signals.

9. Method according to claim 8,
characterized by
a step of deriving, from a RDS signal component of the broadcast signal received
20 at the alternative frequency, a PI code of the broadcast signal at the alternative frequency, and comparing said PI code of the alternative frequency with the PI code of the present frequency.

10. Method according to any of the preceding claims,
25 **characterized in that**
the second gain value is set to a predefined constant.

11. Method according to any of claims 1 to 9,
characterized in that
30 the second gain value is determined by reducing the present gain value by a predefined constant.

12. Method according to any of claims 1 to 9,
characterized in that
35 the second gain value is determined by iteratively reducing the present gain value, whereby in each step, the second gain value is reduced by a predefined constant.

13. Method according to any of the preceding claims,
characterized in that

for each of a set of alternative frequencies, a corresponding gain value adapted to the signal strength of the broadcast signal at said alternative frequency is stored.

14. Gain control unit,

5 **characterized by**

gain switching means for instantaneously switching the receiver's gain from a present gain value corresponding to said present frequency to a second gain value corresponding to an alternative frequency whenever the broadcast signal at said alternative frequency is checked, whereby said second gain value is adapted to the
10 supposed signal strength of the broadcast signal at said alternative frequency.

15. Receiver comprising a gain control unit according to claim 14.

16. Receiver according to claim 15,

15 **characterized by**

comparator means adapted for comparing the signal strength of the broadcast signal received at the alternative frequency to the signal strength of the broadcast signal received at the present frequency.

20 17. Receiver according to claim 15 or claim 16,
characterized by

frequency switching means adapted for switching the received frequency from the present frequency to the alternative frequency in case the signal strength of the broadcast signal at the alternative frequency surpasses the signal strength of the
25 signal at the present frequency, and in case the programs transmitted at both frequencies are identical.

18. Receiver according to any of claims 15 to 17,
characterized in that

30 both the broadcast signal received at said present frequency and the broadcast signal received at said alternative frequency are broadcast signals according to the DRM standard.

19. Receiver according to claim 18,

35 **characterized in that**

alternative frequencies are monitored during time slots (18, 20, 22) of static data symbol transmission, whereby during a first time slot (18), the receiver's gain control circuit settles to said second gain value, and whereby during a second

time slot (20) of static data symbol transmission, the receiver's gain is instantaneously switched to said second gain value.

20. Receiver according to claim 18 or claim 19,

5 **characterized by**

a correlator adapted for correlating said broadcast signal received at said present frequency and said broadcast signal received at said alternative frequency.

21. Receiver according to any of claims 15 to 17,

10 **characterized in that**

both the broadcast signal received at said present frequency and the broadcast signal received at said alternative frequency are FM signals.

22. Receiver according to claim 21,

15 **characterized by**

- decoding means adapted for deriving, from a RDS signal component of the broadcast signal received at the alternative frequency, a PI code of the broadcast signal at the alternative frequency, and
 - comparator means adapted for comparing said PI code of the alternative
- 20 frequency to the PI code of the present frequency.

23. Receiver according to any of claims 15 to 22,

characterized by

storage means adapted for storing, for each of a set of alternative frequencies, a
25 corresponding gain value adapted to the signal strength of the broadcast signal at said alternative frequency.

24. Computer program product, comprising computer program means adapted to perform the method steps as defined in anyone of claims 1 to 13 when said
30 computer program product is executed on a computer, digital signal processor, or the like.